

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/DE 03/01672

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01F1/684 G01F5/00 F02M35/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01F F02M F02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 505 073 A (GERBLINGER JOSEF ET AL) 9 April 1996 (1996-04-09) column 2, line 15-62 column 3, line 58 -column 4, line 31 figures 1,10	1-6,9
X	EP 0 908 704 A (DENSO CORP) 14 April 1999 (1999-04-14) page 1, line 20-25 page 1, line 43 -page 2, line 15 page 2, line 53-58 page 3, line 16-26 figures 1,2,5	1-5,7,8, 10,11
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

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Date of the actual completion of the international search

29 September 2003

Date of mailing of the international search report

04/11/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 221 593 A (NGK SPARK PLUG CO) 10 July 2002 (2002-07-10) column 3, line 6-46 column 17, line 28 -column 19, line 35 figures 11A-12B ----	1-6,9-11
A	DE 100 42 400 A (BOSCH GMBH ROBERT) 14 March 2002 (2002-03-14) column 5, line 49-64; figures 6A-6B ----	1-11
A	EP 1 091 195 A (NGK SPARK PLUG CO) 11 April 2001 (2001-04-11) column 10, line 39 -column 22, line 49; figures 1-7B,12-21 ----	1-11
A	DE 101 35 142 A (BOSCH GMBH ROBERT) 31 October 2002 (2002-10-31) cited in the application column 5, line 5-21; figure 3 -----	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/DE 03/01672

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5505073	A	09-04-1996	DE	4324659 C1	06-04-1995
			EP	0635717 A2	25-01-1995
			JP	7151723 A	16-06-1995
EP 0908704	A	14-04-1999	JP	11118559 A	30-04-1999
			EP	0908704 A1	14-04-1999
			US	6223594 B1	01-05-2001
EP 1221593	A	10-07-2002	EP	1221593 A1	10-07-2002
DE 10042400	A	14-03-2002	DE	10042400 A1	14-03-2002
			CN	1388892 T	01-01-2003
			WO	0218886 A1	07-03-2002
			EP	1315950 A1	04-06-2003
			US	2003046977 A1	13-03-2003
EP 1091195	A	11-04-2001	EP	1091195 A1	11-04-2001
			JP	2001174305 A	29-06-2001
			US	6526822 B1	04-03-2003
DE 10135142	A	31-10-2002	DE	10135142 A1	31-10-2002
			BR	0205043 A	10-06-2003
			WO	02086425 A2	31-10-2002
			US	2003159501 A1	28-08-2003